

d. Class III Hazardous Locations Equipment Requirements

1. Luminaires (Lighting Fixtures) must have enclosures designed to minimize the entry of fibers, to prevent the escape of sparks or hot metal, and to have a maximum exposed surface temperature of less than 165 °C - see NEC 503.9.
2. Motors, generators, and other rotating electric machinery must be totally enclosed non-ventilated, totally enclosed pipe-ventilated, or totally enclosed fan-cooled. The windings of totally enclosed non-ventilated motors are completely enclosed in a tight casing and are cooled by radiation and conduction through the frame. Enclosed pipe-ventilated motors have openings for a ventilating pipe that conveys air to the motor and then discharges it to a safe area. In totally enclosed fan-cooled motors, the windings are cooled by an internal fan that circulates air inside the enclosure. Under certain conditions, self-cleaning textile motors and standard open-type machines may be used - see NEC 503.6.
3. Switches, circuit breakers, motor controllers, and similar devices used in Class III hazardous locations must be within tight metal enclosures that are designed to minimize the entry of fibers and flyings and must not have any openings through which sparks or burning materials might escape - see NEC 503.4.
4. Wiring in Division 1 and most Division 2 locations, must be in conduit, electrical metallic tubing, dust-tight wireways, or Type MC or MI cable, all with boxes, fittings and connections that will provide a dust-tight wiring system - see NEC 503.3.

9.10 FOREMAN'S PRE-JOB SAFETY PLANNING MEETINGS

The Foreman should conduct a daily pre-job safety planning meeting with employees assigned to work in a hazardous location and should make frequent work area inspections.

10.0 PERSONAL PROTECTION EQUIPMENT & OTHER ELECTRICAL PROTECTIVE EQUIPMENT

10.1 GENERAL REQUIREMENTS

Company employees should be safeguarded from injury, while working on job tasks, where potential electrical hazards exist by suitable protective equipment. Protective equipment is not only personal protective equipment, but also any equipment that places an obstacle or insulation between the employee and the electrical hazard. The protective equipment addressed in this section is for exposures to electrical hazards of shock, arc flash, and arc blast. However, when the job task assignments require that employees be protected from other types of work hazards, such as, confined space entry, fall exposures, high noise, airborne contaminants, and other construction job site conditions, the Company's site-specific safety procedures covering these work conditions should be complied with by Foremen and employees.

10.2 RESPONSIBILITIES

a. Site Superintendent

Each Site Superintendent should:

- Review local collective bargaining agreements for requirements and precedents on provision of PPE.
- Determine if the Customer has established requirements for site contractor employees wearing PPE.
- Review scope of work and determine those project job tasks that will require employees to work on:
 - Energized equipment at 600V and below and work is done within the flash protection boundary.
 - Energized equipment above 600V and work is done within the flash protection boundary.
 - Power systems having greater short circuit current capacity or longer fault clearing times that require a flash hazard analysis be completed prior to starting the work.

- Installing, upgrading, or servicing cable, equipment, components, or devices in confined spaces.
- Job tasks exposing employees to fall hazards (over 6') including high elevation (over 70') exposures.
- Sites requiring employees to wear respiratory protective equipment.
- Project locations exposing employees to high noise levels above 85 dBA.
- Maintain knowledge of current OSHA and consensus standards for PPE and other protective devices.
- Purchase and have available on-site appropriate types and amounts of required PPE and other electrical protective devices.
- Ensure that female and male employees (small, average, large, and extra-large size) have been issued properly sized personal protective equipment.
- Require and enforce that all Company and Subcontractor employees, visitors, and vendor reps wear safety helmets, safety glasses with sideshields, heavy duty work boots, and proper work clothing.
- Ensure that Company and Subcontractor employees exposed to vehicle traffic or motorized heavy equipment, on-site or off-site, wear orange vests and work under the work zone traffic protection plan.
- Have Foremen conduct pre-job surveys to assess the need to provide crew members with PPE and other protective devices or equipment.
- Conduct Foremen and employees training sessions covering PPE and other protective devices.
- Enforce the Company's policy and procedures, in accordance with local union bargaining agreements, so that employees properly wear or use PPE and other protective devices or equipment.
- Immediately stop and correct any employee's job task that is not being performed as per the task-specific safety action plan or in violation of the Company's safety procedures.

b. Safety Coordinator

On projects that do not have a Company Safety Coordinator, the Site Superintendent will either take on these responsibilities or assign another staff member to be the Safety Coordinator.

The Site Safety Coordinator will:

- Maintain knowledge of Company, Customer, OSHA, NFPA 70E, and other consensus standards requirements for PPE and other electrical protective devices and equipment.
- Assist the Site Superintendent in the formulation, implementation, administration, and monitoring of the Company's task-specific procedures concerning PPE and other electrical protective equipment.
- Instruct Foremen on how to perform a job hazard survey for various types of job tasks.
- Issue and review with Foremen copies of the Company's site-specific safety procedures that address personal protective equipment and other electrical protective equipment requirements.
- Review with Foremen the Company's procedures for work done within the flash protection boundary.
- Assist Foremen in developing task-specific safety procedures for flash protection boundary work.
- Conduct daily site safety inspections to ensure that Foremen and employees are wearing PPE.
- Hold a daily new-hire employee safety orientation session and address site PPE requirements.
- Instruct Foremen and employees how to perform inspections of rubber-protective equipment.
- Establish procedure for identifying and controlling the Company's personal protective equipment and other electrical protective equipment that must be periodically inspected, tested, and documented.
- Implement the Company's respiratory protection procedures for those site job tasks that Foremen and employees will be required to wear a respirator.
- Assist Foremen to develop, implement, and monitor task-specific safety procedures for confined space entry work.
- Immediately stop and correct any employee's job task that is not being performed as per the task-specific safety action plan or in violation of the Company's safety procedures.

c. Foremen

- Maintain knowledge of Company, Customer, OSHA, NFPA 70E, and other consensus standards requirements for PPE and other electrical protective devices and equipment.
- Conduct job hazard surveys to identify requirements for PPE and other electrical protective equipment.
- Plan every job, document first-time procedures and review task-specific plans with crew members.
- Obtain, inspect, and issue the required PPE and other protective equipment to crew members.
- Instruct crew members on the proper methods of inspecting, using, wearing, caring for and storing PPE and other protective equipment, especially their respirators and rubber-protective equipment.
- Ensure that defective PPE and other protective equipment, especially respirators and rubber-protective equipment are immediately destroyed.
- Conduct daily inspections to enforce compliance with the Company's policy that requires employees to properly wear personal protective equipment and use other electrical safe devices or equipment.
- Instruct crew members that every electrical conductor or circuit part is considered energized, until proven otherwise.
- Only assign the most experienced Company employees, who are qualified journeyman electricians, to work on energized electrical equipment for work performed within the flash protection boundary.
- Provide thermally protective work uniforms to those qualified crew members, who will be routinely exposed to the possibility of electric short, electric arc flash, and arc blast.
- Provide flash suits to those qualified crew members, who will be exposed to a higher than normal potential of electric short, electric arc flash, and arc blast.
- Directly supervise crew members performing work within the flash protection boundary.
- Immediately stop and correct any employee's job task that is not being performed as per the task-specific safety action plan or in violation of the Company's safety procedures.

d. Employees

1. Company employees, who are journeymen construction electricians should:

- Be classified as Qualified Employees per their training, experience, and demonstrated abilities permit.
- Attend the Company's site-specific safety training session.
- Review and understand the job specifications, drawings, and electrical systems, equipment, and components, the manufacturer's installation, check-out, testing, and operation instructions and manuals.
- Attend the Foreman's task-specific job planning review meeting.
- Understand the electrical safety hazards involved and the required safe work practices to be followed.
- Wear the appropriate personal protective equipment and safely use other electrical protective devices.
- Perform work on energized electrical equipment work within the flash protection boundary.
- Immediately stop and correct any apprentice employee's job task that is not being performed as per the task-specific safety action plan or in violation of the Company's safety procedures.

2. Company's employees, who are apprentice construction electricians should:

- Attend the Company's site-specific safety training session.
- Work under the direct supervision of a Qualified Employee.
- Demonstrate the ability to perform duties safely at his or her level of training.
- Review and understand the job specifications, drawings, and electrical systems, equipment, and components -- manufacturers' installation, check-out, testing, and operation instructions and manuals.
- Attend the Foreman's task-specific job planning review meeting.
- Understand the electrical safety hazards involved and the required safe work practices to be followed.
- Wear the appropriate personal protective equipment and safely use other electrical protective devices.

Note: Apprentice construction electricians should be allowed to work on energized electrical equipment within the flash protection boundary.

e. Subcontractor Superintendents

Each Subcontractor Superintendent, through his or her Foremen, will be responsible for the effectiveness of their own site-specific safety procedures and will:

- Review Subcontractor's project scope of work, specifications, drawings, and equipment manufacturers' documents to determine the various types of job tasks that will require PPE & other protective equipment.
- Maintain knowledge of Company, Customer, OSHA, NFPA 70E, and other consensus standards requirements for PPE and other electrical protective devices and equipment.
- Assist the Foremen in the formulation, implementation, administration, and monitoring of the Company's task-specific procedures concerning PPE and other electrical protective equipment.
- Instruct Foremen on how to perform a job hazard survey for various types of job tasks.
- Issue and review with Foremen copies of the Subcontractor's site-specific safety procedures that address personal protective equipment and other electrical protective equipment requirements.
- Review with Foremen -- the Subcontractor's procedures for work within the flash protection boundary.
- Assist Foremen in developing task-specific safety procedures for flash protection boundary work.
- Conduct daily site safety inspections to ensure that Foremen and employees are wearing PPE.
- Hold a daily new-hire employee safety orientation session and address site PPE requirements.
- Establish procedure for identifying and controlling the personal protective equipment and other electrical protective equipment that must be periodically inspected, tested, and documented.
- Implement the Subcontractor's respiratory protection procedures for those site job tasks that Foremen and employees will be required to wear a respirator.
- Immediately stop and correct any employee's job task that is not being performed as per the task-specific safety action plan or in violation of the Subcontractor's safety procedures.

10.3 OSHA & NATIONAL CONSENSUS STANDARDS

a. Company Purchasing Guidelines

Site Superintendent should be required to work with the Company's home office purchasing agents to obtain personal protective equipment and other electrical protective equipment from pre-approved safety product vendors. Agreements with these Company-approved safety supply vendors will require vendors' safety products, shipped or delivered to Company job sites, meet or exceed the most recent OSHA and national consensus standards. Each Site Superintendent will be provided with current safety vendor catalogs and pricing lists so that after the job has started, any additional safety supplies can be ordered directly from the vendor.

b. OSHA Standards

Both the OSHA 1910 General Industry and OSHA 1926 Construction Industry standards are only minimum safety standards and do not reflect the current best practices for safeguarding workers from electrical hazards. Therefore, Site Superintendents should be required to establish their site-specific safety procedures by using most stringent safety requirements or guidelines of the applicable electrical safety OSHA 1910, OSHA 1926, or national consensus standards.

c. National Consensus Standards

A cross reference list of OSHA and national consensus standards is provided as Exhibit 14.6 on page 109.

10.4 CARE, INSPECTIONS, AND TESTING EQUIPMENT

The Foreman should ensure that the PPE or protective equipment manufacturer's instructions for the care, inspection, and testing are fully complied with by crew members.

a. Care

Personal protective equipment must be provided, used, and maintained in a sanitary and reliable condition. Personal protective equipment that has been worn or used previously should not be reissued to another employee, until the article has been inspected, cleaned and sterilized. PPE, which has been changed in any manner that reduces its effectiveness, should be destroyed by the Foreman. Whenever possible, employees' PPE and other electrical protective devices or equipment should be stored in zip lock or sealed clear heavy duty poly bags and kept in secured storage bins. Employees should be instructed to label their PPE poly storage bags with their name.

b. Inspections

Employees should be trained to follow the equipment manufacturer's guidelines for visually inspecting each item of personal and other the protective equipment before using such equipment. Specific inspection guidelines for various rubber protective items are addressed within Section 11.0 - see page 69.

c. Testing and Documentation

The Safety Coordinator should develop and maintain a current inventory of all Company personal protective equipment and other electrical protective equipment and devices that require periodic testing based upon applicable national consensus standards and manufacturers' guidelines. Since electrical testing of rubber goods is a specialized procedure, the Company will not perform these periodic tests, but will either ship these protective rubber items to the manufacturer or a certified testing company to conduct the required electrical insulating quality tests.

10.5 TYPES OF PERSONAL PROTECTIVE EQUIPMENT

a. Head Protection

All Company employees, site visitors, and vendor reps should be issued and required to wear only a type class B hard hat, when outside of the Company's site office trailers. Class B hard hats are intended to reduce the force of impact of falling objects and to reduce the danger of contact with exposed high-voltage conductors. Class B hard hats are proof-tested by the manufacturer at 20,000 V phase-to-ground in accordance with ANSI Z89.1- Requirements for Protective Headwear for Industrial Workers.

However, ANSI Z89.1 standard does not address the electric arc flash hazard. Although class B hard hats offer reasonably good protection from electrical shock, the hats offer little protection from arc flash. Hard hats are made of plastic material that could possibly melt or ignite on the wearer's head. When employees work within the arc flash boundary, their class B hard hat should be covered by a switching hood that is selected based on the degree of arc flash and arc blast hazard exposure.

Employees should be instructed to inspect their hard hat before each use for cracks, penetrations, or other damage and, if found defective, obtain a new hard hat from the Safety Coordinator. Employees must not drill any holes to attach metal pins or other items to their hard hat.

b. Eye and Face Protection

All Company employees, site visitors, and vendor reps should be issued and required to wear, when outside of the Company's site office trailer, safety glasses with sideshields that meet the ANSI Z87.1 Practice for Occupational and Educational Eye and Face Protection standard. Other Company issued eye and face protection equipment, such as safety goggles or face shields, should also meet the ANSI Z87.1 standards.

Employees that wear prescription eyeglasses that are not safety prescription glasses with sideshields should be required to wear ultraviolet-resistant safety goggles over their non-safety prescription glasses.

Since the ANSI Z87.1 standard does not address arc flash hazards, the Company's policy should be that any time an employee's head is within the arc flash boundary, that employee must be wearing both safety glasses with sideshields, and a flash suit face shield/hood that covers the employee's chin and neck.

It should be also the Company's policy that Company employees assigned to work on energized electrical circuits should not wear contact lenses.

c. Hand & Arm Protection

Employees should be issued and required to wear rubber insulating gloves with leather protectors and insulating rubber sleeves, when there is a danger of hand and arm injury from electric shock and arc flash burns due to contact with live parts. Only those rubber insulating gloves that meet or exceed the ASTM D1051 Standard Specification for Rubber Insulating Sleeves should be purchased by the Company and issued to employees.

d. Foot & Leg Protection

Company should be required to wear steel toe safety boots on the jobsite. Employees should be issued and required to wear insulated footwear (dielectric overshoes) to protect against step and touch potential, when working on or near exposed energized electrical conductors or circuit parts.

Company issued insulated footwear should meet or exceed the ASTM F1117 Standard Specification for Dielectric Overshoe Footwear and ASTM Z41 Standard for Personnel Protection, Protective Footwear standards. Insulated soles are not to be used as an alternative to rubber insulating mats.

e. Body Protection

Company employees will be required to wear clothing, which provides resistant to flash flame, when there is a possible exposure to an electric arc flash. Clothing and equipment that maximize employee protection should be utilized. Flame-resistant and natural fiber garments should be permitted to be used for a layered system for added protection. A typical layering system may include a cotton undershirt, cotton shirt, and trouser, and flame-resistant (FR) coverall. Clothing should cover potentially exposed areas as completely as possible. Tight-fitting clothing should be avoided. FR apparel should fit properly such that it does not interfere with the work task. Garments worn as outer layers over flame resistant clothing, such as, jackets or rain gear, should also be made from flame resistant material. When flame resistant, flame retardant, or treated clothing is worn to protect an employee, it should cover all ignitable clothing and should allow for movement and visibility.

10.6 ARC FLASH PROTECTIVE EQUIPMENT

Unless the electrical equipment is placed into an electrically safe work condition, locked out, tagged, and tested for voltage per proper procedures, the system must be considered unsafe, requiring proper protective equipment to be used. Any body part extended within the appropriate risk boundary must be protected from the hazard(s) existing within that boundary. If a hand is within the arc flash boundary, then the hand must be protected by PPE. If a person's head is within the arc flash boundary, the head must be protected.

NFPA 70E- 2000 Edition also states in sections 2-5.5 and 2-5.6 that conductive materials, tools and equipment that are in contact with any part of an employee's body be handled in a manner that will prevent accidental contact with exposed energized conductors or circuit parts. This includes articles of jewelry such as rings, conductive watchbands and metal frame glasses.

In most instances, wearing flame-resistant clothing continuously is an effective safety measure for employees who are exposed to arc flash hazards. NFPA 70E Part II, Chapter 3- 2000 Edition consensus standard requires that any body part within the arc flash boundary area be protected using appropriate PPE.

The only effective method for preventing an electric arc flash event is to de-energize the circuit. While it is not always possible to de-energize the circuit, the Foreman must determine if the arc-flash energy exposure can be reduced with the use of current-limiting devices. The Foreman must also determine if the electrical system components have finger-safe IP2X terminals, covers, and shrouds are installed to protect against employees coming in direct or indirect contact with energized electrical parts within an enclosure. Live parts that could easily be touched, while resetting, adjusting or replacing nearby components, must provide protection against direct contact to at least an IP2X rating. IP2X is often referred to as Finger-Safe meaning that a probe, the approximate size of a finger, must not be able to access or make contact with hazardous energized parts. The standard detailing the rating system used is IEC 529.

Note: The use of IP2X devices or the placement of insulating barriers may effectively protect employees from shock hazards, but may not protect employees from flash hazards. Therefore, the use of these devices may change the electrical shock hazard classification, but does not always eliminate the requirements of flash protection if the job task involves work inside the flash hazard boundary.

The NFPA 70E standard requires that a guard be used to prevent access to voltages above 50 volts. Guarding and the insulation of insulating barriers must be completed if work is to be performed while the equipment is energized.

The Foreman will use the result of his or her job hazard survey to select appropriate PPE based upon the potential hazards, where the exposure exists. In other words, if the hazard survey identifies arc flash as a hazard, then flame-resistant apparel and personal protective equipment should be worn by crew members. If a shock hazard exists, then voltage-rated equipment and PPE are required.

The following identifies typical PPE and flame-resistant apparel required at various flash protection boundary distances for direct exposure to energized conductors or circuit parts above 50 Volts:

| Flash Protection Boundary | Employees should wear a class B hard hat, safety glasses with sideshields and the following additional PPE: |
|---------------------------|--|
| Less than 6 inches | Voltage class rubber insulating gloves with leather shell protectors. |
| 6 to 12 inches | Rubber gloves, face shield, & 1 layer 4.5 oz Nomex work clothing - long sleeves shirt and long pants. |
| 12 to 30 inches | Rubber gloves, rubber sleeves, face shield with switching hood, and 1 layer 6.0 oz. Nomex thermally protective work uniform. |
| Greater than 30 inches | Rubber gloves, rubber sleeves, face shield with switching hood, 2 layers of Nomex flash suit equivalent to mm. of 10 oz. |

a. Company Policy Guidelines on Employees' Flame Resistant (FR) Apparel

All Company qualified employees assigned to work on energized electrical conductors or circuit parts within the flash protection boundary should be required to wear flame resistant (FR) apparel in accordance with the ASTM F1506 Standard Specification for Protective Wearing Apparel for Use by Electrical Workers When Exposed to Momentary Electric Arc and Related Thermal Hazards.

The Site Superintendent should not allow any Company site visitor or vendor service representative to be directly and/or indirectly exposed to a Company controlled work area having a flash protection boundary. In addition, if the Customer has mandated that their qualified Foreman or electrician work jointly with the Company's crew member performing the live work, the Customer's Foreman or qualified electrician must wear the appropriate level of person protective equipment for the flash protection boundary work.

1. Clothing Not Permitted

The most significant arc flash injuries occur as a result of work clothing igniting or melting into the skin of the injured worker. Some artificial fabrics, such as, nylon, polyester, and similar materials, will melt before igniting. Clothing made from these fabrics should never be worn as external garments by construction workers exposed to welding, burning, grinding operations or by construction electricians working on live electric conductor or circuit parts. Melting or burning apparel is difficult to remove and subjects the wearer's skin tissue to high temperatures for an extended period of time.

Employees should not to wear work clothing made from synthetic materials such as acetate, nylon, polyester, rayon, either alone or in blends with cotton. The Safety Coordinator should address this issue during the Company's new-hire employees safety orientation session and provide employees with information on vendors that sell flame-resistant apparel including shirts, pants, coveralls, jackets, and rain gear.

2. Thermal Protective Clothing

The Foreman will provide thermally protective work uniforms to those qualified crew members, who will be routinely exposed to the possibility of electric short, electric arc flash and arc blast.

3. Flash Suits

A flash suit is a thermal protective garment made of a heavier-weight Nomex, PBI, or other flame-retardant material. The flash suit provides protection for temperatures up to 450°F or 232°C, but has a short-term capability much greater than this amount. The flash suit has a face-shield/hood and long jacket. Some suits are also supplied with pants. The jacket must be securely sealed to prevent the entry of the superheated plasma gas. However, flash suits and their closure design must permit easy and rapid removal. The entire flash suit, including the window, should have energy-absorbing characteristics that are suitable for the arc flash exposure. Flash suits must be used in conjunction with adequately rated head, eye, and hand protection. The Foreman should provide flash suits to those qualified crew members, who will be exposed to a higher than normal potential of electric short, electric arc flash, and arc blast. At a minimum all employees should wear flash suits, when exposed to 480 volts or greater.

The Customer's may also have standard operating procedures that address those specific job tasks that require workers to wear flash suits. For example, one large petrochemical company requires flash suits for the procedures listed below, but only when the circuit breaker feeding the circuit has an ampacity of 100 A or greater:

- Operating open-air switches on circuits of 480 V or higher.
- Open-door switching and racking of circuit breakers - 480 V or higher.
- Removing and installing motor starters in motor control centers - 208 V or higher.
- Installing or removing safety grounds - 480 V and higher.
- Measuring voltage in any circuit, which is uncertain or has exhibited problems - 208 V or higher.
- Working on or near any exposed energized conductors or circuit parts - 208 V or higher.

b. Types of Personal Protective Equipment

1. Face Protection

Face shields made of polycarbonate materials are more appropriate for use in situations with lower radiation exposure. Safety glasses and goggles provide less protection, but in low risk tasks these may be justified if the task involves substantial physical work in combination with good visual requirements. Company employees must always wear safety glasses or goggles under face shields or hoods.

2. Hand Protection

Gloves made from layers of flame-resistant materials provide the highest level of hand protection. Heavy-duty leather gloves also provide good protection. Where voltage-rated rubber protection gloves are used, leather protectors should be worn over the rubber gloves.

c. Care, Maintenance, and Inspections of FR Clothing and FR Flash Suits

Foremen will follow the care, use, and inspection guidelines for Company-issued thermal protective clothing as required by the ASTM F 1506 Standard Specification for Protective Wearing Apparel for Use by Electrical Workers When Exposed to Momentary Electric Arc and Related Thermal Hazards. These should include:

- Inspect work uniforms and flash suits before each use.
- Clean or replace if contaminated, greasy, worn, or damaged in any way.
- Prevent clothing from becoming greasy or impregnated with flammable liquids.
- Launder according to manufacturer's instructions. (Generally, home laundering in hot water with a heavy-duty detergent will be effective.)
- Do not mix flame resistant garments with items made of other materials in the same wash.
- Observe manufacturer's instructions on the number of times garment can be laundered without degrading the garments flame-retardant chemical treatment.

FR cotton materials offer fair thermal protection lasting about one year. FR polyester-cotton materials offer fair to good protection lasting for two years. Nomex materials offer excellent thermal protection lasting four years. (Another FR product similar to Nomex is called PBI.)

d. Flash Protection Field Marking

NEC 110.16 Flash Protection states that switchboards, panelboards, industrial control panels, and motor control centers in other than dwelling occupancies, that are likely to require examination, adjustment, servicing, or maintenance while energized, shall be field marked to warn qualified persons of potential electric arc flash hazards. The marking shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.

11.0 RUBBER PROTECTION EQUIPMENT

11.1 ELECTRICAL WORKERS' PROTECTIVE EQUIPMENT

a. General Requirements

This section covers Company requirements for rubber protective equipment under the control and care of Foremen. Rubber insulating equipment includes rubber gloves, sleeves, mats, blankets, covers, and line hoses. The American Society of Testing and Materials (ASTM) publishes recognized industry standards that cover rubber insulating goods.

Each Foremen should ensure that the rubber protective equipment being used by his or her crew members are properly marked, stored, cared for, and inspected before each use; rubber gloves are air tested before each use; items are cleaned after each use and taken out of service, when found defective and electrically tested, when insulating value is suspect; and tested every 6 months for rubber gloves and every 12 months for blankets and sleeves. Foremen must store all rubber protection equipment away from light, temperature extremes, excessive humidity, ozone and other injurious substances and conditions. Employees should be required to cleaned rubber protection equipment after each use to remove foreign substances.